

AMENDMENTS TO THE CLAIMS

Claims 1-26. (Canceled)

27. (new) Method of piloting mobile vehicles driven by actuators on a continuous track, said mobile vehicles being guided by operators via a guide circuit comprising several guide lanes, said guide circuit being common to the mobile vehicles moving around the continuous track, the method comprising the steps of:
- selecting, a head of time or in real time, a mobility strategy for a mobile vehicle by an operator;
 - parameterizing said mobile vehicle based on said selected mobility strategy by said operator;
 - transmitting control instructions in accordance with said selected mobility strategy to said mobile vehicle, said control instructions comprising instructions relating to said mobile vehicle's speed and a guide land to be used by said mobile vehicle; and
 - selecting the guide lane based on said control instructions received by said mobile vehicle as said mobile vehicle moves around the continuous track.
28. (new) Method of claim 27, wherein the step of parameterizing comprises the step of parameterizing at least one of the following parameters: a type of said mobile vehicle, a type of driving, types and/or quantities of resources available, a speed parameter and a lane change parameter.
29. (new) Method of claim 27, further comprising the step of entering data and/or macro commands into a memory area located in said mobile vehicle by said operator, said memory area being associated with a microcontroller that controls said actuators.
30. (new) Method of claim 27, wherein the step of transmitting comprises the steps of:
- initializing said mobile vehicle by assigning an unique identifier;
 - formatting said control instructions in the form of digital data by associating said control instructions with said identifier of said mobile vehicle;

multiplexing in said guide circuit said control instructions specific to said mobile vehicle and the electric power supply required to operate said mobile vehicle; and

extracting said control instructions specific to said mobile vehicle from the multiplexed control instructions based on said identifier assigned to said mobile vehicle by a microcontroller associated with said mobile vehicle; and

the method further comprising the step of controlling said actuators by said microcontroller based on said extracted control instructions.

31. (new) Method of claim 30, wherein the step of multiplexing comprises the step of time multiplexing.
32. (new) Method of claim 31, wherein the step of time multiplexing comprises a phase for supplying electric power to said mobile vehicle after each phase for transmitting said control instructions to said mobile vehicle.
33. (new) Method of claim 27, further comprising the steps of:
 - supplying power to said actuators of said mobile vehicle through at least one of the following: an electrical circuit associated with the guide circuit, a battery in said mobile vehicle or a rechargeable battery in said mobile vehicle;
 - initializing said mobile object by assigning an unique identifier;
 - formatting said control instructions in the form of digital data by associating said control instructions with said identifier of said mobile vehicle;
 - transmitting a signal to said mobile vehicle, said signal being at least one of the following: an infrared signal, a sound signal or an electromagnetic signal;
 - extracting said control instructions for said mobile vehicle from said signal based on said identifier assigned to said mobile vehicle by a microcontroller associated with said mobile vehicle, thereby enabling the transmission of said control instructions in accordance with said selected mobility strategy to said mobile vehicle; and
 - controlling said actuators of said mobile vehicle based on said control instructions extracted from said signal by said microcontroller.

34. (new) Method of claim 27, further comprising the steps of:

transmitting a guide signal to a receiver disposed on said guide circuit or the continuous track;

decoding, by said receiver, said guide signal to generate a control signal for controlling the state of a switch disposed on said guide circuit and associated with said receiver; and

changing the state of said switch as a function of said control signal such that as said mobile vehicle moves around the continuous track, said mobile vehicle is operable to actuate said switch that allows said mobile vehicle to change lanes in accordance with mobility strategy; and

wherein lateral movements of said mobile vehicle on the continuous track observed by said operator in response to said operator transmitting control instructions are substantially identical to movements observed by said operator actuating a steering wheel to change the direction of said mobile vehicle; and

wherein said mobile vehicle can pass another mobile vehicle in front by swerving laterally.

35. (new) Method of claim 34, wherein said receiver being disposed ahead of said switch on said guide circuit or the continuous track; and wherein the step of changing the state of said switch produces a change in the movement for only mobile vehicle that first actuated said switch.

36. (new) Method of claim 34, further comprising the step of automatically switching said switch to a predetermined state after the passage of a mobile vehicle that actuated said switch.

37. (new) Method of claim 36, further comprising the step of automatically switching said switch to an initial state after the passage of a mobile vehicle that actuated said switch.

38. (new) Method of claim 27, further comprising the step of detecting a label associated with said mobile vehicle, by a reader integral with the continuous track, to determine the number of laps completed by said mobile vehicle.

39. (new) Method of claim 27, further comprising the step of detecting a label associated with said mobile vehicle, by a reader integral with the continuous track, to determine the time said mobile vehicle takes to complete a given number of laps around the continuous track.
40. (new) A system for piloting mobile vehicles driven by actuators on a continuous track, said mobile vehicle being guided by operators via a guide circuit comprising several guide lanes, said guide circuit being common to the mobile vehicles moving around the continuous track, the system comprising:
- a processing unit for parameterizing a mobile vehicle based on a mobility strategy selected ahead of time or in real time by an operator; and
 - a transmitter for transmitting control instructions in accordance with said selected mobility strategy chosen, said control instructions comprising instructions relating to said mobile vehicle's speed and a guide lane to be used by said mobile vehicle; and
- wherein said mobile vehicle comprises a selection means for selecting a guide lane as said mobile vehicle moves around the continuous track based on said control instructions received by said mobile vehicle.
41. (new) The system of claim 40, wherein said mobility strategy comprises one of the following parameters: a type of mobile vehicle, a type of driving, types and/or quantities of resources available, a speed parameter and a lane change parameter.
42. (new) The system of claim of claim 40, wherein said processing unit comprises a control element for entering data and/or macro commands into a memory area located in said mobile vehicle, said memory area being associated with a microcontroller that controls said actuators.
43. (new) The system of claim 40, wherein said mobile vehicle being identified by an unique identifier and comprising a microcontroller; and further comprising a base comprising:
- joysticks actuated by said operator to acquire control instructions;

a processing unit for formatting said control instructions in the form of digital data by associating said control instructions with said identifier of said mobile vehicle; and

a control unit for multiplexing, in said guide circuit, said control instructions specific to said mobile vehicle and the electric power supply required to operate said mobile vehicle; and

wherein said microcontroller is operable to extract said control instructions specific to said mobile vehicle from the multiplexed control instructions based on said identifier assigned to said mobile vehicle and to control said actuators based on said extracted control instructions.

44. (new) The system of claim 43, wherein said control unit is operable to perform time multiplexing of said control instructions with the power supply.

45. (new) The system of claim 44, wherein said time multiplexing comprises a phase for supplying electric power to said mobile vehicle after each phase for transmitting said control instructions to said mobile vehicle.

46. (new) The system of 40, wherein said mobile vehicle being identified by an unique identifier and comprising a microcontroller; and further comprising

an electric power supply for supplying power to said actuators, said electric power supply comprising at least one of the following: an electrical circuit associated with the guide circuit, a battery in said mobile vehicle or a rechargeable battery in said mobile vehicle; and

a base comprising:

joysticks actuated by said operator to acquire control instructions;

a processing unit for formatting said control instructions in the form of digital data by associating said control instructions with said identifier of said mobile vehicle; and

a transmitter for transmitting a signal to said mobile vehicle, said signal being at least one of the following: an infrared signal, a sound signal or an electromagnetic signal; and wherein said microcontroller is operable to extract said control instructions for said mobile vehicle from said signal based on said identifier assigned

to said mobile vehicle and to control said actuators based on said extracted control instructions.

47. (new) The system of claim 40, wherein said mobile vehicle comprises a guide element that cooperates with said guide lanes, said guide lanes being interconnected by switches; and a transmitter for transmitting a guide signal to a switch receiver associated with a switch, said switch receiver being disposed on said guide circuit or the continuous track;

wherein said switch receiver comprises a decoder for decoding said guide signal to generate a control signal for said switch;

wherein said switch comprises a moving element having at least two positions and actuated by said control signal, thereby permitting said mobile vehicle to select said guide lane based on said mobility strategy as said mobile vehicle moves around the continuous track.

48. (new) The system of claim 47, wherein said switch receiver being disposed ahead of said switch on said guide circuit or the continuous track such that a change in the position of said the moving element of said switch produces a change in the movement for only mobile vehicle that first actuated said switch.

49. (new) The system of claim 47, wherein said switch is operable to automatically switch to a predetermined state after the passage of a mobile vehicle that actuated said switch.

50. (new) The system of claim 49, said predetermined state is an initial state of said switch.

51. (new) The system of claim 40, further comprising:

a label reader, integral with the continuous track, for detecting a label associated with said mobile vehicle; and

a processing unit, associated with said label reader, for determining the number of laps completed by said mobile vehicle.

52. (new) The system of claim 40, further comprising:

a label reader, integral with the track, for detecting a label associated with said mobile vehicle; and

a processing unit, associated with said label reader, for determining the time said mobile vehicle takes to complete a given number of laps around the continuous track.